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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,874	06/30/2000	Jyoti Mazumder	POM-12302/29	2635

7590 05/29/2003

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EXAMINER

GARLAND, STEVEN R

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 05/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/608,874

Applicant(s)

MAZUMDER, JYOTI

Examiner

Steven R Garland

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2000 and 01 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1,2,4,6,7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaman et al. 5,352,405.

Beaman et al. teaches depositing a powder, sintering the powder using a laser and then using the laser to control stress in the material by overlapping the scans. See the abstract; figures; col. 1, lines 44-50; col. 7, line 39 to col. 8, line 5.

Beaman however does not specifically disclose that a metal powder is being used, but does teach the use of metal powders.

It would have been obvious to one of ordinary skill in the art to modify Beaman in view of Beaman's teaching and use a metal powder so that an accurately built metal object could be formed.

2. Claims 3,5,8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaman 5,352,405 as applied to claims 1,2,4,6,7, and 9 above, and further in view of Murnick 5,427,825.

Beaman et al. teaches depositing a powder, sintering the powder using a laser and then using the laser to control stress in the material by overlapping the scans. See the abstract; figures; col. 1, lines 44-50; col. 7, line 39 to col. 8, line 5.

Beaman however does not specifically disclose that a metal powder is being used, but does teach the use of metal powders.

It would have been obvious to one of ordinary skill in the art to modify Beaman in view of Beaman's teaching and use a metal powder so that an accurately built metal object could be formed.

Beaman however does use a plurality of lasers or defocus the beam to control stress.

Murnick teaches fusing a powdered material using a laser and then controlling the cooling of the fused material using a laser during the annealing step to reduce stress. Murnick teaches a variety of methods such as using the same beam to control both stress and melting; using a plurality of lasers for cooling; adjusting the focus or intensity of the laser to control cooling. See the abstract; figures; col. 2, lines 40-55; col. 3, line 13 to col. 4, line 37; col. 4, line 67 to col. 5, line 11; col. 5, lines 55-63; col. 9, lines 28-66; col. 11, line 58 to col. 12, line 35; and the claims.

It would have been obvious to one of ordinary skill in the art to modify Beaman in view of Murnick to use multiple beams or defocus the beam to further reduce stress and to insure that the stress is reduced.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. La Rocca 4,665,298; White 6,443,352 are both of interest in stress reduction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven R Garland whose telephone number is 703-305-9759. The examiner can normally be reached on Monday –Thursday from 6:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239; for after final faxes 703-308-7238; and for non official faxes 703-746-7240.

Art Unit: 2125

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-3900.

SRD

Steven R Garland
Examiner
Art Unit 2125

L. P. Picard

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100